

Notice of Allowability

Application No.

10/776,770

Examiner

Leonard J. Weinstein

Applicant(s)

KADLICKO, GEORGE

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/18/2007.
2. ☒ The allowed claim(s) is/are 1-6,9-11,14-16 and 18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Leonard Weinstein

DEVON C. KADLICKO
PATENT EXAMINER

DETAILED ACTION

1. This office action is in response to the amendment of September 18, 2007. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.
2. The examiner acknowledges that claims 1, 5, 6, 9, 10, 14-16, and 18 have been amended and claims 7, 8, 12, 13, 17 have been canceled.

EXAMINER'S AMENDMENT

The application has been amended as follows: the claims have been corrected for grammatical errors; no subject matter has been changed. The amendments to the claims follow:

- a. The recitation of claim 1 including
 - "A hydraulic machine comprising a housing, a rotating group rotatably mounted within said housing and including barrel and a plurality of pistons axially slideable in cylinders in said barrel, and a swashplate assembly to engage said pistons and induce reciprocation thereof as said barrel rotates in said housing, a port plate interposed between said barrel and said housing and effective to connect respective ones of said cylinders alternatively with an inlet port and an outlet port, a slipper assembly acting between said swashplate and said piston to transfer loads therebetween"

Has been amend to recite:

--- A hydraulic machine comprising a housing, a rotating group rotatably mounted within said housing and including a barrel and a plurality of piston assemblies axially slideable in cylinders in said barrel, and a swashplate assembly to engage said piston assemblies and induce reciprocation thereof

as said barrel rotates in said housing, a port plate interposed between said barrel and said housing and effective to connect respective ones of said cylinders alternatively with an inlet port and an outlet port, each of said piston assemblies having a piston and a slipper assembly acting between said swashplate and said piston to transfer loads therebetween ---

b. The recitation of claim 2:

- “A machine according to claim 1 wherein said piston is tubular and said slipper assembly includes a passageway extending through said base from said piston to said planar bearing to supply fluid thereto”

Has been amended to recite:

- --- A machine according to claim 1 wherein each one of said pistons is tubular and each one of said slipper assemblies includes a passageway extending through said base from one of said pistons to said planar bearing surface to supply fluid thereto---

c. The recitation of claim 3:

- “A machine according to claim 2 wherein said base of slipper assembly has a diameter greater than that of said piston and said slippers are retained in engagement”

Has been amended to recite:

- “A machine according to claim 2 wherein said base of each one of said slipper assemblies has a diameter greater than that of each one of said pistons and said slipper assemblies are retained in engagement”

d. The recitation of claim 10:

- " a slipper assembly including a base having planar bearing surface"

Has been amended to recite:

- --- a slipper assembly including a base having a planar bearing surface ---

e. The recitation of claim 16:

- "depth greater than the diameter of said cavity, inserting therein a complementary spherical bearing of a slipper assembly, and deforming the walls of said cavity to conform to the surface of said spherical bearing said step of deforming said walls including the step of a radial load about the equator of said spherical bearing, after said walls conform to"

Has been amended to:

- "depth greater than a diameter of said cavity, inserting therein a complementary spherical bearing of a slipper assembly, and deforming the walls of said cavity to conform to the surface of said spherical bearing said step of deforming said walls including the step of a radial load about a equator of said spherical bearing, after said walls conform to"

Allowable Subject Matter

3. Claims 1-6, 9-11, 14-16, and 18 are allowed.
4. The following is an examiner's statement of reasons for allowance, independent claims 1, 10, and 16 each set for a limitation that is not taught by the prior art. The prior art fails to teach or suggest a piston assembly for a rotating hydraulic machine that includes a slipper assembly having a base section provided with a spigot projection,

bore to receive said spigot, the through bore has a counterbore of greater diameter than said through bore at an end remote from a base portion of the slipper assembly. The novel feature of the instant invention lies within the structure of the through bore, specifically the counterbore. It is noted by the examiner that the applicant discloses the claimed counterbore in the specification as a stepped section of the through bore of a spherical bearing having a greater diameter than the through bore, clearly shown in figure 10-10e and designated by element 106. The counterbore provides a structure that permits a novel method, such as the method of claim 16, for assembling a piston assembly in which the spigot is enlarged at an end portion within the counterbore and the spigot is therefore retained in the spherical bearing.

Claims 1, 10, and 16 were previously rejected under U.S.C. 102 (b) as anticipated by Engel US - 5,490, 446. Engel teaches a very similar piston provided with a slipper assembly with a spigot that is inserted into a spherical bearing disposed within a recess of a piston tube. Engel fails to teach a through bore that extends through the body of a spherical bearing and has a counterbore (stepped section) which has a greater diameter than the remainder of the through bore, on a side of the through bore opposite the base of a spigot assembly (emphasis added). The counterbore permits a novel method of assembly and therefore it would not be obvious to provide a counterbore within the spherical bearing of Engel so that a spigot can expanded and be retained.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

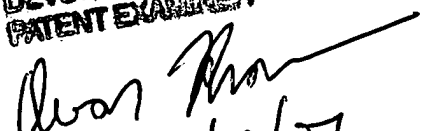
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is (571) 272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Karmer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


LJW

DEVON C. KARMER
PATENT EXAMINER


12/10/07